

CLAIMS

1. A method for wireless communication at a user equipment (UE), comprising: identifying that a scheduling request (SR) is to be transmitted on a first uplink control channel message having a first transmission time interval (TTI) duration; identifying that acknowledgment/negative acknowledgment (ACK/NACK) information is scheduled for transmission on a second uplink control channel message having a second TTI duration that is greater than the first TTI duration, wherein the first uplink control channel message and the second uplink control channel message overlap in time; determining that the ACK/NACK information is to be transmitted with the SR on the first uplink control channel message based at least in part on the first uplink control channel message overlapping with the second uplink control channel message; dropping the second uplink control channel message based at least in part on determining that the ACK/NACK information is to be transmitted with the SR on the first uplink control channel message; determining resources of the first uplink control channel message to be used for transmission of the SR and the ACK/NACK information; and transmitting the SR and the ACK/NACK information on the determined resources of the first uplink control channel message.
2. The method of claim 1, further comprising: determining a format of the first uplink control channel message based at least in part on a size of the ACK/NACK information, wherein the format of the first uplink control channel message corresponds to a plurality of resources; and identifying an SR configuration that indicates first resources from the plurality of resources for transmitting the SR and the ACK/NACK information in accordance with the format, wherein the determined resources comprise the first resources.
3. The method of claim 2, wherein the ACK/NACK information is associated with communications using the second TTI duration.
4. The method of claim 2, wherein determining the format of the first uplink control channel message comprises: identifying the format based at least in part on the first TTI duration, wherein the first TTI duration comprises one of a slot or a duration less than the slot, and wherein the format comprises a short physical uplink control channel (sPUCCH) format 3 or an sPUCCH format 4.
5. The method of claim 2, wherein identifying the SR configuration comprises: identifying the SR configuration from a set of configurations for the transmission of the ACK/NACK information, or the SR, or a combination thereof.
6. The method of claim 5, wherein a first configuration from the set of configurations comprises an indication of whether the SR is to be transmitted on the first uplink control channel message or the second uplink control channel message.

7. The method of claim 5, wherein a second configuration from the set of configurations indicates whether the transmission of SR is to be deferred.
8. The method of claim 5, wherein a third configuration from the set of configurations indicates that the second uplink control channel message is to be dropped.
9. The method of claim 5, wherein a fourth configuration from the set of configurations indicates that the second uplink control channel message and the ACK/NACK information is to be dropped.
10. The method of claim 2, wherein the SR configuration is received via downlink control information (DCI), radio resource control (RRC) messaging, or a combination thereof.
11. The method of claim 2, wherein the SR configuration is preconfigured.
12. The method of claim 1, further comprising: determining that a size of the ACK/NACK information is greater than two bits.
13. The method of claim 1, further comprising: determining a format of the first uplink control channel message based at least in part on a size of the ACK/NACK information, wherein the format of the first uplink control channel message corresponds to a plurality of resources; and identifying an SR configuration that indicates two or more resources from the plurality of resources to be used for transmitting the SR and the ACK/NACK information in accordance with the format, wherein the determined resources are selected from the two or more resources based on the SR configuration.
14. The method of claim 13, further comprising: identifying a coding rate threshold for the resources of the first uplink control channel message, wherein determining the resources of the first uplink control channel message comprises: determining the resources from the two or more resources based at least in part on the coding rate threshold, the size of the ACK/NACK information, and a number of cyclic redundancy check (CRC) bits.
15. The method of claim 14, further comprising: selecting, from the two or more resources, a first resource for transmitting the SR and the ACK/NACK information such that a coding rate of the first resource satisfies the coding rate threshold based on a payload size of the first resource, wherein the first resource is a smallest resource of the two or more resources.
16. The method of claim 14, further comprising: selecting, from the two or more resources, a first resource for transmitting the SR and the ACK/NACK information; determining that the first resource does not satisfy the coding rate threshold based on a payload size of the first resource; and selecting, from the two or more resources, a second resource such that a coding rate of the second resource satisfies the coding rate threshold, wherein the second resource is larger than the first resource.

17. The method of claim 16, wherein each of the two or more resources are mapped to a number of resource blocks (RBs).

18. The method of claim 16, wherein determining the format of the first uplink control channel message comprises: identifying the format based at least in part on the first TTI duration, wherein the first TTI duration comprises one of a slot or a duration less than the slot, and wherein the format comprises a short physical uplink control channel (sPUCCH) format 3 or an sPUCCH format 4.

19. The method of claim 1, further comprising: determining a format of the first uplink control channel message based at least in part on a size of the ACK/NACK information, wherein the format of the first uplink control channel message corresponds to a plurality of resources; and identifying a most recent instance of the first uplink control channel message having the determined format that was indicated to the UE, wherein determining the resources of the first uplink control channel message to be used for transmission of the SR and the ACK/NACK information is based at least in part on the most recent instance, or the determined format, or a combination thereof.

20. The method of claim 19, wherein determining the format of the first uplink control channel message comprises: identifying a format configuration for the resources based at least in part on the first TTI duration, the first TTI duration comprising a slot or duration less than the slot, and wherein the format comprises a short physical uplink control channel (sPUCCH) format 3 or an sPUCCH format 4.

21. The method of claim 1, further comprising: determining an absence of downlink control information (DCI) comprising an ACK/NACK resource indicator (ARI) for the first uplink control channel message, wherein determining the resources of the first uplink control channel message to be used for transmission of the SR and the ACK/NACK information is based on the absence of the DCI.

22. The method of claim 1, further comprising: receiving an SR configuration that indicates the SR is to be transmitted on the first uplink control channel message.

23. An apparatus for wireless communication, comprising: means for identifying that a scheduling request (SR) is to be transmitted on a first uplink control channel message having a first transmission time interval (TTI) duration; means for identifying that acknowledgment/negative acknowledgment (ACK/NACK) information is scheduled for transmission on a second uplink control channel message having a second TTI duration that is greater than the first TTI duration, wherein the first uplink control channel message and the second uplink control channel message overlap in time; means for determining that the ACK/NACK information is to be transmitted with the SR on the first uplink control channel message based at least in part on the first uplink control channel message overlapping with the

second uplink control channel message; means for dropping the second uplink control channel message based at least in part on determining that the ACK/NACK information is to be transmitted on the first uplink control channel message; means for determining resources of the first uplink control channel message to be used for transmission of the SR and the ACK/NACK information; and means for transmitting the SR and the ACK/NACK information on the determined resources of the first uplink control channel message.

24. An apparatus for wireless communication, comprising: a processor; memory in electronic communication with the processor; and instructions stored in the memory and executable by the processor to cause the apparatus to: identify that a scheduling request (SR) is to be transmitted on a first uplink control channel message having a first transmission time interval (TTI) duration; identify that acknowledgment/negative acknowledgment (ACK/NACK) information is scheduled for transmission on a second uplink control channel message having a second TTI duration that is greater than the first TTI duration, wherein the first uplink control channel message and the second uplink control channel message overlap in time; determine that the ACK/NACK information is to be transmitted with the SR on the first uplink control channel message based at least in part on the first uplink control channel message overlapping with the second uplink control channel message; drop the second uplink control channel message based at least in part on determining that the ACK/NACK information is to be transmitted on the first uplink control channel message; determine resources of the first uplink control channel message to be used for transmission of the SR and the ACK/NACK information; and transmit the SR and the ACK/NACK information on the determined resources of the first uplink control channel message.

25. The apparatus of claim 24, wherein the instructions are further executable by the processor to cause the apparatus to: determine a format of the first uplink control channel message based at least in part on a size of the ACK/NACK information, wherein the format of the first uplink control channel message corresponds to a plurality of resources; and identify an SR configuration that indicates first resources from the plurality of resources to be used for transmitting the SR and the ACK/NACK information in accordance with the format, wherein the determined resources comprise the first resources.

26. The apparatus of claim 25, wherein the instructions to determine the format of the first uplink control channel message are executable by the processor to cause the apparatus to: identify the format based at least in part on the first TTI duration, wherein the first TTI duration comprises one of a slot or a duration less than the slot, and wherein the format comprises a short physical uplink control channel (sPUCCH) format 3 or an sPUCCH format 4.

27. The apparatus of claim 25, wherein the instructions to identify the SR configuration are executable by the processor to cause the apparatus to: identify the SR configuration from a set of configurations for the transmission of the ACK/NACK information, or the SR, or a combination thereof.

28. The apparatus of claim 27, wherein a first configuration from the set of configurations comprises an indication of whether the SR is to be transmitted on the first uplink control channel message or the second uplink control channel message.
29. The apparatus of claim 27, wherein a second configuration from the set of configurations indicates whether the transmission of SR is to be deferred.
30. The apparatus of claim 27, wherein a third configuration from the set of configurations indicates that the second uplink control channel message is to be dropped.
31. The apparatus of claim 27, wherein a fourth configuration from the set of configurations indicates that the second uplink control channel message and the ACK/NACK information is to be dropped.
32. The apparatus of claim 25, wherein the SR configuration is received via downlink control information (DCI), radio resource control (RRC) messaging, or a combination thereof.
33. The apparatus of claim 25, wherein the SR configuration is preconfigured.
34. The apparatus of claim 24, wherein the instructions are further executable by the processor to cause the apparatus to: determine that a size of the ACK/NACK information is greater than two bits.
35. The apparatus of claim 24, wherein the instructions are further executable by the processor to cause the apparatus to: determine a format of the first uplink control channel message based at least in part on a size of the ACK/NACK information, wherein the format of the first uplink control channel message corresponds to a plurality of resources; and identify an SR configuration that indicates two or more resources from the plurality of resources to be used for transmitting the SR and the ACK/NACK information in accordance with the format, wherein the determined resources are selected from the two or more resources based on the SR configuration.
36. The apparatus of claim 35, wherein the instructions are further executable by the processor to cause the apparatus to: identify a coding rate threshold for the resources of the first uplink control channel message, wherein the instruction to determine the resources of the first uplink control channel message are executable by the processor to cause the apparatus to: determine the resources from the two or more resources based at least in part on the coding rate threshold, the size of the ACK/NACK information, and a number of cyclic redundancy check (CRC) bits.
37. The apparatus of claim 36, wherein the instructions are further executable by the processor to cause the apparatus to: select, from the two or more resources, a first resource for transmitting the SR and the ACK/NACK information such that a coding rate of the first resource satisfies the coding rate threshold based on a payload size of the first resource, wherein the first resource is a smallest resource of the two or more resources.

38. The apparatus of claim 36, wherein the instructions are further executable by the processor to cause the apparatus to: select, from the two or more resources, a first resource for transmitting the SR and the ACK/NACK information; determine that the first resource does not satisfy the coding rate threshold based on a payload size of the first resource; and select, from the two or more resources, a second resource such that a coding rate of the second resource satisfies the coding rate threshold, wherein the second resource is larger than the first resource.

39. The apparatus of claim 35, wherein each of the two or more resources are mapped to a number of resource blocks (RBs).

40. The apparatus of claim 35, wherein the instructions to determine the format of the first uplink control channel message are executable by the processor to cause the apparatus to: identify the format based at least in part on the first TTI duration, wherein the first TTI duration comprises one of a slot or a duration less than the slot, and wherein the format comprises a short physical uplink control channel (sPUCCH) format 3 or an sPUCCH format 4.

41. The apparatus of claim 24, wherein the instructions are further executable by the processor to cause the apparatus to: determine a format of the first uplink control channel message based at least in part on a size of the ACK/NACK information, wherein the format of the first uplink control channel message corresponds to a plurality of resources; and identify a most recent instance of the first uplink control channel message having the determined format that was indicated to the UE, wherein determining the resources of the first uplink control channel message to be used for transmission of the SR and the ACK/NACK information is based at least in part on the most recent instance, or the determined format, or a combination thereof.

42. The apparatus of claim 41, wherein the instructions to determine the format of the first uplink control channel message are executable by the processor to cause the apparatus to: identify a format configuration for the resources based at least in part on the first TTI duration, the first TTI duration comprising a slot or duration less than the slot, and wherein the format comprises a short physical uplink control channel (sPUCCH) format 3 or an sPUCCH format 4.

43. The apparatus of claim 24, wherein the instructions are further executable by the processor to cause the apparatus to: determine an absence of downlink control information (DCI) comprising an ACK/NACK resource indicator (ARI) for the first uplink control channel message, wherein determining the resources of the first uplink control channel message to be used for transmission of the SR and the ACK/NACK information is based on the absence of the DCI.

44. The apparatus of claim 24, wherein the instructions are further executable by the processor to cause the apparatus to: receive an SR configuration that indicates the SR is to be transmitted on the first uplink control channel message.